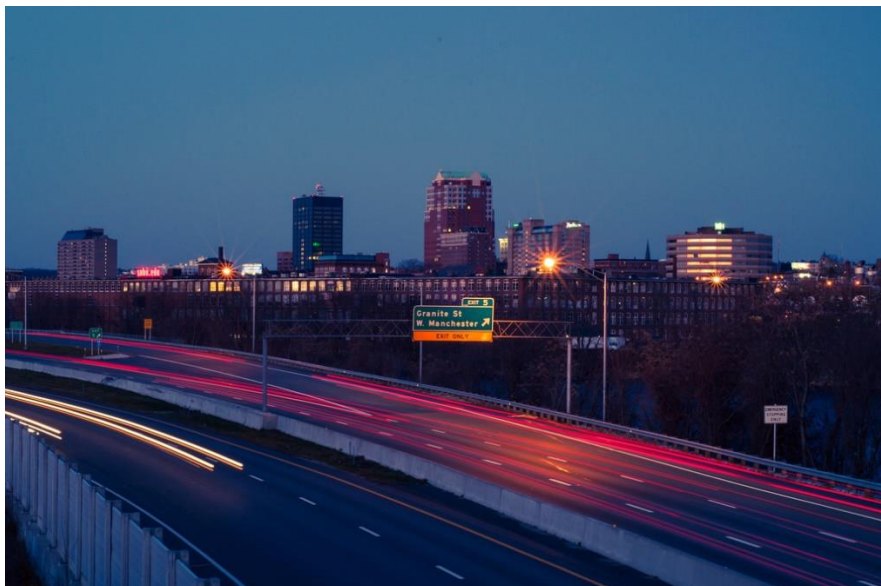
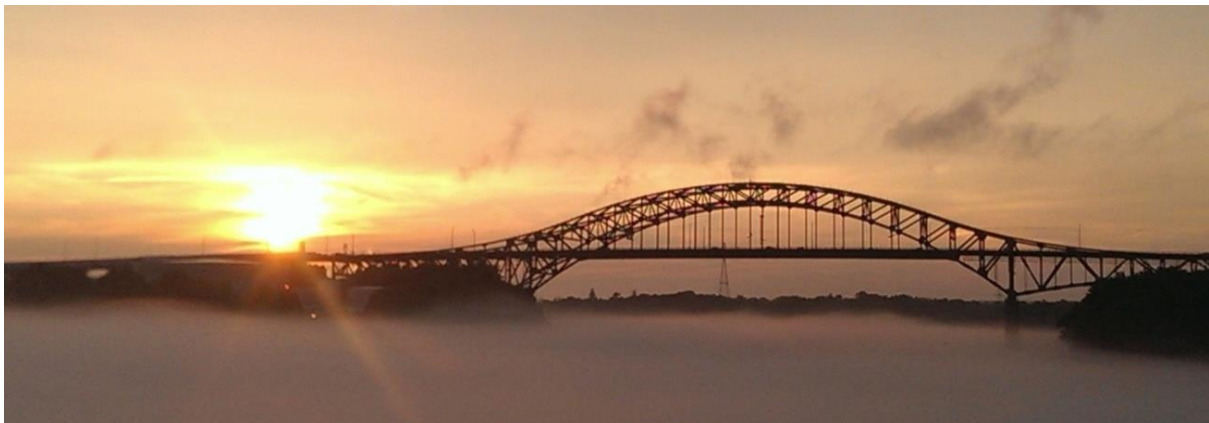


State of New Hampshire
DRAFT Beneficiary Environmental Mitigation Plan
April 10, 2018



THIS PAGE LEFT INTENTIONALLY BLANK

**NEW HAMPSHIRE DRAFT BENEFICIARY MITIGATION PLAN
FOR USE OF VOLKSWAGEN MITIGATION TRUST FUNDS**

Table of Contents

A. Introduction3

B. Overview of Settlement.....3

C. New Hampshire Goals for use of the Mitigation Trust.....4

D. Public Comments.....5

 1. Comments Received to Date5

 2. Request for Comments on This Draft Beneficiary Mitigation Plan.....6

E. Air Quality in New Hampshire6

 1. Background.....6

 2. Sources of Emissions in New Hampshire.....7

 3. Scope and Location of Excess Emissions9

F. Proposed Spending Plan.....9

 1. Available Funding10

 2. Funding Principles.....10

 3. Eligible Sources and Mitigation Actions11

 4. Proposed Funding Allocation.....11

 i. Public/Government Vehicles and Equipment11

 ii. Electric Vehicle Supply Equipment12

 iii. Competitive Project Solicitation13

 iv. Administration Costs13

G. Application and Evaluation Process.....13

H. Anticipated Benefits14

Appendix 1 - Eligible Mitigation Projects and Expenditures as Specified in Appendix D-2 of the Environmental Mitigation Trust Agreement for State Beneficiaries.....16

Appendix 2 – Definitions/Glossary of Terms23

A. Introduction

This draft Beneficiary Mitigation Plan summarizes how the State of New Hampshire proposes to use the funds allocated to it under the fully executed *Environmental Mitigation Trust Agreement for State Beneficiaries* (Mitigation Trust) that was finalized October 2, 2017¹. Governor Sununu has directed the Governor's Office of Strategic Initiatives (OSI) to serve as New Hampshire's lead agency in relation to the Mitigation Trust and the New Hampshire Department of Environmental Services (NHDES) to work with OSI to develop New Hampshire's Beneficiary Mitigation Plan for use of the funds. This draft Beneficiary Mitigation Plan describes how New Hampshire plans to use the almost \$31,000,000 allocated to the State under the terms of the Mitigation Trust.

All documentation related to the Mitigation Trust, including this Beneficiary Mitigation Plan as well as future documents related to use of the Settlement Funds can be viewed on the [OSI website](#)².

B. Overview of Settlement

On January 4, 2016, the United States and the State of California filed a complaint against several Volkswagen companies³, referred to herein as Volkswagen, alleging violations of the Clean Air Act with regard to approximately 580,000 model years 2009 to 2015 2.0 and 3.0-liter diesel engines. The complaint alleged that the vehicles contained "defeat devices" in the form of computer software, designed to cheat on federal emissions tests, enabling the vehicles to emit levels of oxides of nitrogen (NOx) as high as forty times the federal standard without detection by the vehicle's On Board Diagnostic system, a system that numerous states, including New Hampshire, rely upon to detect and require repairs on vehicles exceeding federal emission standards. On October 2, 2017, the Department of Justice and Volkswagen signed a \$15 billion settlement, a portion of which – \$2.9 billion – will be held by the Mitigation Trust referenced above and shared among the U.S. states and tribes, based on the number of violating vehicles registered in each. New Hampshire's share is \$30,914,841.09.

Governor Sununu designated OSI as the lead agency to manage the Mitigation Trust for New Hampshire, which will be spent over 7 years on projects to offset the excess pollution from the violating vehicles. OSI will work with NHDES to develop programs and select projects to be funded by the Mitigation Trust. The Trustee of Mitigation Trust will make disbursements from the Trust to fund Eligible Mitigation Actions by beneficiaries and pay administrative costs in accordance with the terms of the Consent Decrees.

¹ <https://www.epa.gov/enforcement/environmental-mitigation-trust-agreements>

² <https://www.nh.gov/osi/energy/programs/vw-settlement.htm>

³ Including Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. h.c. F. Porsche AG, and Porsche Cars North America, Inc..

Following filing of the required certifications, the State of New Hampshire became a Beneficiary of the Mitigation Trust in late January, 2018. With the submittal of a final Beneficiary Mitigation Plan to the Trustee funds will be available to support Eligible Mitigation Actions (see Section F.3.) in the state.

C. New Hampshire Goals for use of the Mitigation Trust

New Hampshire will utilize the Mitigation Trust to alleviate the excess nitrogen oxide emissions caused by the Volkswagen violations through implementation of cost-effective projects in all regions of the state, and to best serve the state's economic and social well-being by focusing on those projects that will result in broad public benefits, serve the state's economically challenged communities and make the state a welcoming environment for all ages, abilities and backgrounds to live, work and play.

To achieve these goals, this Beneficiary Mitigation Plan:

- Sets aside a portion of the Mitigation Trust for the replacement of publically-owned vehicles, including both state and municipal fleets, that will lower operating and maintenance costs and save tax payers money;
- Gives priority to projects that are located in economically challenged communities, areas with historical air quality issues, and areas that receive a disproportionate quantity of air pollution from diesel fleets;
- Supports the use of zero emission and near-zero emission vehicles by investing in electric vehicle charging infrastructure at strategic locations throughout the state and encouraging the replacement of diesel vehicles and equipment with lower emission alternatives, including those powered by electric and other alternative fuels;
- Maximizes air quality benefits beyond just nitrogen oxide reductions, including reductions in harmful particulate matter and greenhouse gas emissions;
- Leverages investment of additional funds by requiring a monetary match for all projects, including those for government fleet replacements, to expand the number and scope of projects that can be served by the Mitigation Trust; and
- Ensures all disbursements from the Mitigation Trust are made through a transparent public process that complies with all legal requirements.

D. Public Comments

1. Comments Received to Date

Following the October 25, 2016 announcement of the VW Settlement Consent Decree NHDES, in conjunction with the NH Attorney General's Office, held a public meeting on November 29, 2016 to provide an overview of the Consent Decree and solicit public input regarding the use of the Mitigation Trust in New Hampshire. The approximately 25 individuals attending the meeting provided verbal comments, and written comments were also solicited there and on the NHDES website by January 15, 2017. In addition, NHDES requested potential project applicants provide information on the types of projects for which they might seek funding, requesting that input by February 15, 2017. NHDES received 52 written comments and 24 project proposals by the above deadlines. In addition, NHDES has provided presentations and/or information on the Mitigation Trust at dozens of other meetings since then and has received numerous additional written comments as well as verbal input regarding the highest and best use of the Mitigation Trust. OSI has also received comments prior to the release of this draft Beneficiary Mitigation Plan. Most of the comments address three key issues:

- New Hampshire should prioritize use of the Mitigation Trust for the replacement of publicly-owned diesel fleets (including state and municipal) with cleaner vehicles that will provide a broad public benefit by lowering maintenance and fuel costs for tax payers.
- New Hampshire should utilize the full 15 percent of the State's allocation to support the development of electric vehicle supply (i.e. charging) equipment (EVSE) to enable electric vehicle (EV) travel within and through the state.
- New Hampshire should require some level of matching funds, even for government projects that are eligible for 100 percent funding under the terms of the Mitigation Trust, to enable more projects and broader environmental and economic benefits.

2. Request for Comments on This Draft Beneficiary Mitigation Plan

This Draft Beneficiary Mitigation Plan was prepared with the above comments in mind and OSI is requesting public input on this Plan. Following receipt and review of comments a final Mitigation Plan will be prepared and submitted to the Trustee.

Written comments will be accepted by OSI until Tuesday, June 5, 2018 and should be sent to:

vwsettlement@osi.nh.gov

or

Office of Strategic Initiatives

Attn: Chris Ellms

Johnson Hall, 3rd Floor

107 Pleasant Street

Concord, NH 03301

In addition to accepting written comments, OSI and NHDES will accept comments at seven public input sessions to be held around the state in late April and early May. Further information, including the times and locations of the public comment sessions, will be posted on the [OSI website](#)⁴.

E. Air Quality in New Hampshire

1. Background

New Hampshire is fortunate to have relatively good air quality in all parts of the state. However, we still experience elevated ozone levels each year. Ground level ozone is the primary ingredient in smog and forms when nitrogen oxides (primarily from combustion of fossil fuels) and volatile organic compounds react in the atmosphere in the presence of heat and sunlight. It is a respiratory irritant that can cause grave health issues, particularly for sensitive people such as the elderly, young children and those with asthma or other respiratory problems, and can also cause health problems for healthy adults on severe days. Ozone can cause chest pains, breathing difficulties, coughing, and stinging in the eyes or throat. Portions of southern and coastal New Hampshire were previously classified by the United States Environmental Protection Agency (EPA) as non-attainment under the 2008 8-Hour Ozone National Ambient Air Quality Standard. Although New Hampshire achieved attainment with the Ozone standard in July 2013 the state continues to have several unhealthy air quality days due to high ozone levels each year (five in 2017).

⁴ <https://www.nh.gov/osi/energy/programs/vw-settlement.htm>

DRAFT BENEFICIARY MITIGATION PLAN FOR PUBLIC COMMENT

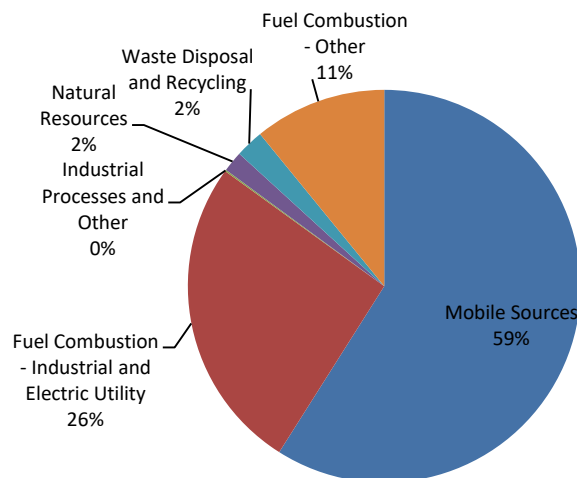
In addition to its contribution to smog, the EPA has designated diesel exhaust as a likely human carcinogen that can also damage the lungs in other ways depending on exposure⁵. Diesel exhaust contains fine particulate matter (PM_{2.5}) that can be inhaled deep in the lungs. Carcinogenic compounds cling to those particles. Inhalation of diesel exhaust places healthy people more at risk for respiratory disease and worsens the symptoms of people with health problems such as asthma, heart disease, and lung disease. People living or working near ports or areas with high rail or truck traffic are at a greater risk of exposure. Strategies to mitigate the excess diesel pollution will achieve co-benefits that reduce toxic diesel fine particles and their negative human health effects.

Greenhouse gas (GHG) emissions are also emitted by diesel vehicles. The transportation sector is the largest source of GHG emissions in the state. While GHG emissions have fallen over 25 percent since they peaked in 2005, emissions from the transportation sector have played a small part in that decline. By replacing older inefficient vehicles with more efficient models and in some cases with cleaner fuels (e.g. electricity), GHG emissions will be reduced.

2. Sources of Emissions in New Hampshire

Nitrogen oxides (NO_x) are emitted from the combustion of fuels. The mobile sources sector, including both on-road registered vehicles and non-road vehicles such as construction equipment, contributes almost 60 percent of NO_x emissions in New Hampshire as indicated in Figure 1.

Figure 1 - Nitrogen Oxides (NO_x) Emissions by Sector Source

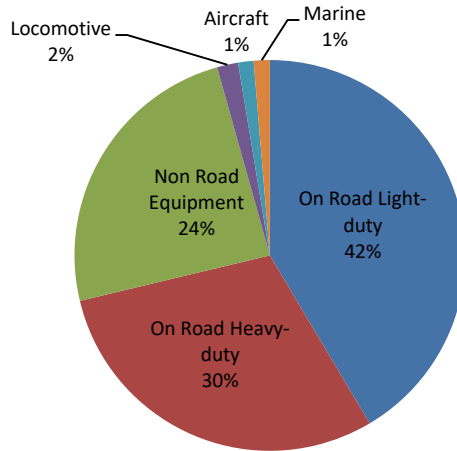


Data Source: 2014 National Emissions Inventory

⁵ Environmental Protection Agency: Health Assessment Document for Diesel Engine Exhaust (Final 2002) <https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=29060>

As illustrated in Figure 2, within the mobile sources sector on-road light-duty (cars) and on-road heavy-duty (e.g. trucks, buses) account for over 70 percent of mobile source NO_x emissions, and non-road equipment such as recreational vehicles and construction equipment contribute about a quarter of the NO_x emissions.

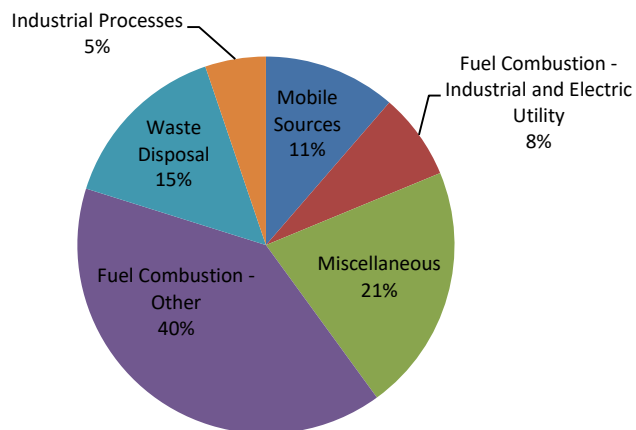
Figure 2 - Nitrogen Oxides (NO_x) Mobile Sources Emissions by Sector



Data Source: 2014 National Emissions Inventory

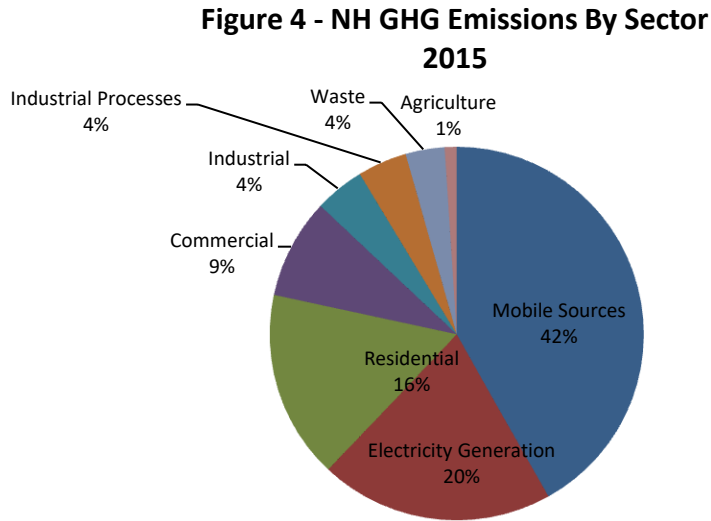
Figure 3 presents a breakdown of fine particulate matter (PM_{2.5}) emissions by source type in New Hampshire. While mobile sources account for a relatively small percentage of PM_{2.5} emissions (11 percent), vehicles tend to operate in populated areas where those emissions can directly impact people.

Figure 3 - Particulate Matter 2.5 (PM_{2.5}) Emissions by Sector Source



Data Source: 2014 National Emissions Inventory

Figure 4 depicts sources of greenhouse gas emissions in the state. The transportation sector is the single largest source of GHG emissions, with 42 percent of emissions coming from on- and non-road cars, trucks and equipment.



Source: NHDES Analysis of US EIA and EPA

Source: GHG emissions data for figures developed by NHDES analysis of: annual primary energy consumption data from the US DOE EIA State Energy Database; electric sector GHG emissions data from RGGI Inc. available on the COATS platform; and non-CO₂ emissions from the EPA's State Inventory Tool.

3. Scope and Location of Excess Emissions

Of the approximately 1.47 million vehicles registered in New Hampshire at the time that the illegal software was discovered, between 5,000 and 6,000 affected vehicles were registered here. The vehicles are located in all counties in the state, with relatively more vehicles in the more populous counties. Emissions from the affected vehicles are assumed to be spread throughout New Hampshire as a result of intra- and inter-state travel.

F. Proposed Spending Plan

The spending plan proposed below provides the framework for distribution of the Mitigation Trust funds. The initial focus will be on public fleets, support of electric vehicles, and initiation of a competitive project solicitation open to both public and private entities for certain categories of vehicles. It is recognized that unforeseen opportunities or barriers may support modifications to this initial plan over time.

1. Available Funding

The Mitigation Trust allocates \$29,544,294.76 to New Hampshire based on the number of affected 2.0 liter diesel vehicles and an additional \$1,370,543.33 based on the number of affected 3.0 liter diesel vehicles registered in the state, for a total of \$30,914,841.09. The Settlement Funds may be accessed 30 days after the State has submitted a Beneficiary Mitigation Plan.

As a Beneficiary, New Hampshire may request one third of Eligible Mitigation Action Settlement Funds, or approximately \$10.2 million, in the first year of the program and up to two thirds in the second year. The remainder of the state's allotment will be available in year three. The Mitigation Trust has been designed to be administered over a ten year period. Additionally, the Consent Decree includes provisions whereby states, at the conclusion of this ten-year period, may be eligible to receive additional funding in excess of their original 2.0 and 3.0 allocations. Beneficiaries capable of reporting that they have, as of the tenth anniversary of the agreement, obligated at least eighty percent of their original allocation will be eligible to apply for additional funding from unexpended Mitigation Trust assets. It is also anticipated that each state's allotted funds will increase through investments undertaken by the Trustee of the principal and income of Mitigation Trust assets.

2. Funding Principles

The following principles are the basis for the funding allocations described in Section 4 below. These principles are based on priorities of the state as well as comments received from stakeholders and the public to date and are as follows:

- a. Replacement of publically owned state and municipal vehicle fleets will benefit tax-payers by reducing maintenance and operating costs.
- b. Requiring some level of matching funds for all projects, including government projects eligible for 100 percent funding under the terms of the Mitigation Trust, will result in more carefully and skillfully planned projects and will also enable more total projects to be implemented.
- c. Investment in electric vehicle charging infrastructure will support New Hampshire's tourism-based economy and will help attract and retain younger professionals to the state.
- d. It is appropriate to use Settlement Funds to reduce emissions in areas exposed to a disproportionate level of emissions, including economically challenged communities.
- e. All areas of the state should share in the benefits of the Mitigation Trust.

3. Eligible Sources and Mitigation Actions

Both public and private entities will be considered for certain funding categories. It is anticipated that 100 percent of the Settlement Funds will be awarded within the next seven years through an open process that will comply with all applicable state and federal procurement requirements. OSI and NHDES will maintain and make publically available all documentation relative to funding requests and expenditures.

Expenditures from New Hampshire's Mitigation Trust through 2020 will be constrained to eligible projects in six of the ten Eligible Mitigation Action areas described in Appendix D-2 of the Settlement Agreement:

1. Class 8 Local Freight Trucks and Port Drayage Trucks
2. Class 4-8 School Buses, Shuttle Buses or Transit Buses
6. Class 4-7 Local Freight Trucks (Medium Trucks)
7. Airport Ground Support Equipment
9. Light Duty Zero Emission Vehicle Supply Equipment
10. Diesel Emission Reduction Act (DERA) Option

The numbers assigned above correspond to the numbering of eligible actions in Appendix D-2 of the Settlement Agreement, the full listing of which is included in Appendix 1 of this Plan.

4. Proposed Funding Allocation

i. Public/Government Vehicles and Equipment

Approximately \$15.5 million (50 percent) of New Hampshire's allocation will be used to replace state and municipal⁶ vehicles and equipment under categories 1, 2, 6, and 10 in Section 3 above.

Based on an analysis of the State's diesel fleet vehicles and a high level review of municipally-owned diesel vehicles this sector presents a significant opportunity for reducing emissions. Furthermore, replacement of this equipment will have broad public benefits by reducing local sources of emissions and reducing repair and operating costs of the older equipment. Therefore, half of the Settlement Funds are targeted for this sector.

Of this allocation approximately **\$9.3 million** (60 percent) will be utilized to replace eligible vehicles owned by municipal governments, including school districts and transit agencies. This sector includes

⁶ The term "municipal" includes municipal fleet vehicles, school district vehicles, entities whose vehicles or diesel equipment are owned by or operated on behalf of a government entity, and all transit agencies whether municipally owned or not.

some of the oldest and dirtiest vehicles in the state. An assessment of the number of municipal vehicles currently registered in the state indicates that approximately 4,300 vehicles may be eligible for replacement under the terms of the Settlement.

The remainder, approximately **\$6.2 million**, will be utilized to replace state-owned vehicles. New Hampshire's Department of Transportation alone has over 140 diesel vehicle and equipment units that are eligible for funding under the terms of the Settlement. Based on an assessment of ten other state agency fleets, approximately 20 additional state-owned vehicles could also qualify for replacement.

It is recognized that the allocated funds in the Mitigation Trust are not enough to replace all qualifying vehicles at the state and municipal level. In order to ensure the best use of the Funds all projects will require a minimum of 20% non-federal match. Additionally, many state and municipal vehicles will only qualify under Option 10 of the Trust, the "DERA Option", which requires a non-federal match of 60 to 75 percent, depending on the project. Project selection criteria will be established to ensure distribution of the Settlement Funds in this category meet the funding priorities and principles outlined in this Mitigation Plan.

ii. Electric Vehicle Supply Equipment

Approximately \$4.6 million (15 percent) of New Hampshire's allocation will be used for the acquisition, installation, operation and maintenance of electric vehicle supply equipment (EVSE) as allowed under Category 9 of the Settlement Agreement.

With the decreasing costs and increased availability of EVs, this provision of the Mitigation Trust offers New Hampshire a unique opportunity to invest in the future and ensure New Hampshire remains a destination for travelers from across the Northeast and Canada. Decisions on the location and type of charging infrastructure in the state should consider investments and programs in neighboring states and provinces and investments made by Electrify America pursuant to Appendix C of the Settlement Agreement. Collaboration with in-state stakeholders in determining where, how and when to invest is prudent. Should Senate Bill 517, establishing an electric vehicle charging stations infrastructure commission, pass in the current legislative session, investment decisions would take into consideration recommendations from this commission. State investments should seek to leverage private sector funding and must occur in a manner that will allow for broad access to users and incorporation of technological advances in EV charging infrastructure.

iii. Competitive Project Solicitation

Approximately \$6.2 million (20 percent) of New Hampshire's allocation will be available to all entities, public and private, through a competitive solicitation for projects in categories 1, 2, 6, 7 and 10 as outlined in Section F.3 above.

It is anticipated that these Settlement Funds will be allocated based on proposals submitted by public and private entities in response to a request for proposals (RFP). The process for applying for funding as well as the methodology to be used for project evaluation will be detailed in the RFP. Each project proposal will receive a fair and transparent assessment and all proposals and their scores will be made public⁷. Project evaluation criteria for project proposals under this section are discussed further in Section G below.

iv. Administration Costs

No more than \$4.6 million (15 percent) of New Hampshire's allocation will be utilized for administrative costs.

It is estimated that administrative costs incurred by the State of New Hampshire will remain below 10 percent of New Hampshire's allocation. However, the actual mechanism for project solicitation and selection, as well as the scope of administrative costs that will be incurred by the State in managing the Trust funds are, as yet, unknown. Administrative costs permitted by the Mitigation Trust include salaries and wages; fringe benefits; travel; supplies (including tangible property); contracted services and goods; construction; and other costs (i.e. insurance, professional services, printing, training, indirect costs). If, as anticipated, administrative costs are below the allowable 15 percent the balance in this category will be allotted to the Competitive Project Solicitation category.

G. Application and Evaluation Process

Projects will be funded through a competitive application process using specific criteria for scoring projects to select those that best align with the plan goals. In order to be responsive to lessons learned through the initial funding opportunity, changing priorities, new technologies or other events that warrant changes in the program, projects will be selected through multiple funding rounds. Project selection criteria will include, but not be limited to: emissions reductions (including NOx, PM and GHG); location in the state relative to economically challenged communities; demonstrated public benefit; and cost effectiveness.

It is the State's intent to lower the barriers to access to these funds by simplifying the application process so that even those without experience in applying for funds from the state can participate in this

⁷ Business confidential information contained in a project proposal submitted in response to an RFP must be appropriately labeled as such and will not be made public to the extent allowed by law.

opportunity. A user-friendly application that balances the need for detailed project information with the needs of applicants will be developed so that vehicle and equipment owners are able to fill out the forms themselves without help from professional grant writers. NHDES staff will also be available to assist in the application process. All funding opportunities will be widely promoted across the state. There will be multiple opportunities to ask questions about the funding process and those questions and answers will be posted to the website.

New Hampshire seeks to reduce the administrative burden of both the application and fund distribution process while maintaining a rigorous, transparent and fair system and invites comments on ways to achieve this goal.

New Hampshire proposes to manage “DERA Option” projects⁸ (Diesel Emission Reduction Act funding from the EPA) through the existing State Clean Diesel Program managed by NHDES. The DERA option enables use of the Mitigation Trust for actions not specifically enumerated in the other nine project categories, but that are otherwise eligible under the EPA’s DERA program. It is anticipated that many state and municipal fleet replacement proposals will fall under this funding category. The current approved NHDES DERA Work Plan will serve as the Beneficiary Mitigation Plan for these projects, subject to the same funding priorities as established in this document.

Additionally, to ensure efficient use of funding and effective administration of projects, consideration will be given to establishing a minimum project size and encourage grouping of smaller projects under a single entity acting as a lead agent.

H. Anticipated Benefits

Implementation of eligible mitigation activities, including projects such as retrofit, repower, or replacement of eligible vehicles and equipment may provide a wide range of emission benefits based on many variables, such as the type of vehicle or engine replaced, the initial age of the engine, the engine power rating, and how a particular vehicle is actually used.

Based on current EPA exhaust emission standards for NOx:

- Heavy duty highway vehicles may provide up to a 96 percent reduction in NOx emissions per vehicle, based on replacing a model year 1992 engine with a model year 2017 engine,
- Non-road equipment replacements, depending on the type of equipment and engine power rating, may provide between a 93 percent and 96 percent reduction in NOx emissions for each engine,

⁸ See Appendix 1 – Eligible Mitigation Projects, category 10 for a description of the DERA Option.

DRAFT BENEFICIARY MITIGATION PLAN FOR PUBLIC COMMENT

The range of emission benefits provided above are for individual engines and actual NOx emissions reductions will vary based on the type of projects ultimately implemented. Actual emission reductions for proposed projects will be calculated utilizing the EPA Diesel Emission Quantifier or similar tool that can provide transparent data on emissions reductions and relative cost-effectiveness of a proposed project.

The implementation of eligible mitigation projects funded through the Mitigation Trust in New Hampshire will also provide health and economic benefits. Reducing exposure to harmful diesel emissions improves the health and well-being of our residents and may help reduce health care costs. Economic benefits to the state will stem from cost savings to state and municipal fleets, and thus taxpayers, from increased efficiency and reduced maintenance. Increased business opportunities for companies providing vehicles, equipment and EV charging infrastructure may also lead to a growth in jobs in those sectors. In addition, with over 80 percent of each dollar spent on petroleum leaving the New Hampshire economy to pay for the imported fuel, improvements in vehicle efficiency that reduce petroleum fuel use will retain those energy dollars in the state where they can be redirected into other areas of economy.

Investments in EV charging infrastructure in the state will support the adoption of and increased use of electric vehicles, which will reduce NOx, PM2.5 and GHG emissions from the transportation sector. Investment by the state may also leverage investment by other sources, including investments by Electrify America through the National Zero Emission Vehicle Investment Plan required by Appendix C of the Settlement Agreement.

Appendix 1 - Eligible Mitigation Projects and Expenditures as Specified in Appendix D-2 of the Environmental Mitigation Trust Agreement for State Beneficiaries

1. Class 8 Local Freight Trucks and Port Drayage Trucks (Eligible Large Trucks)

a. Eligible Large Trucks include 1992-2009 engine model year Class 8 Local Freight or Drayage. For Beneficiaries that have State regulations that already require upgrades to 1992-2009 engine model year trucks at the time of the proposed Eligible Mitigation Action, Eligible Large Trucks shall also include 2010-2012 engine model year Class 8 Local Freight or Drayage.

b. Eligible Large Trucks must be Scrapped.

c. Eligible Large Trucks may be Repowered with any new diesel or Alternate Fueled engine or All-Electric engine, or may be replaced with any new diesel or Alternate Fueled or All-Electric vehicle, with the engine model year in which the Eligible Large Trucks Mitigation Action occurs or one engine model year prior.

d. For Non-Government Owned Eligible Class 8 Local Freight Trucks, Beneficiaries may only draw funds from the Trust in the amount of:

1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
2. Up to 25% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
3. Up to 75% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
4. Up to 75% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

e. For Non-Government Owned Eligible Drayage Trucks, Beneficiaries may only draw funds from the Trust in the amount of:

1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
2. Up to 50% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
3. Up to 75% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
4. Up to 75% of the cost of a new all-electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

f. For Government Owned Eligible Class 8 Large Trucks, Beneficiaries may draw funds from the Trust in the amount of:

1. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
2. Up to 100% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.

DRAFT BENEFICIARY MITIGATION PLAN FOR PUBLIC COMMENT

3. Up to 100% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
4. Up to 100% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

2. Class 4-8 School Bus, Shuttle Bus, or Transit Bus (Eligible Buses)

a. Eligible Buses include 2009 engine model year or older class 4-8 school buses, shuttle buses, or transit buses. For Beneficiaries that have State regulations that already require upgrades to 1992-2009 engine model year buses at the time of the proposed Eligible Mitigation Action, Eligible Buses shall also include 2010-2012 engine model year class 4-8 school buses, shuttle buses, or transit buses.

b. Eligible Buses must be Scrapped.

c. Eligible Buses may be Repowered with any new diesel or Alternate Fueled or All-Electric engine, or may be replaced with any new diesel or Alternate Fueled or All-Electric vehicle, with the engine model year in which the Eligible Bus Mitigation Action occurs or one engine model year prior.

d. For Non-Government Owned Buses, Beneficiaries may draw funds from the Trust in the amount of:

1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
2. Up to 25% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
3. Up to 75% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
4. Up to 75% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

e. For Government Owned Eligible Buses, and Privately Owned School Buses Under Contract with a Public School District, Beneficiaries may draw funds from the Trust in the amount of:

1. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
2. Up to 100% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
3. Up to 100% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
4. Up to 100% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

3. Freight Switchers

a. Eligible Freight Switchers include pre-Tier 4 switcher locomotives that operate 1000 or more hours per year.

b. Eligible Freight Switchers must be Scrapped.

c. Eligible Freight Switchers may be Repowered with any new diesel or Alternate Fueled or All-Electric engine(s) (including Generator Sets), or may be replaced with any new diesel or Alternate Fueled or All-Electric (including Generator Sets) Freight Switcher, that is certified to meet the applicable EPA emissions standards (or other more stringent equivalent State standard) as published in the CFR for the engine model year in which the Eligible Freight Switcher Mitigation Action occurs.

d. For Non-Government Owned Freight Switchers, Beneficiaries may draw funds from the Trust in the amount of :

DRAFT BENEFICIARY MITIGATION PLAN FOR PUBLIC COMMENT

1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s) or Generator Sets, including the costs of installation of such engine(s).
 2. Up to 25% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) Freight Switcher.
 - 3.
 4. Up to 75% of the cost of a Repower with a new All-Electric engine(s), including the costs of installation of such engine(s), and charging infrastructure associated with the new All-Electric engine(s).
 5. Up to 75% of the cost of a new All-Electric Freight Switcher, including charging infrastructure associated with the new All-Electric Freight Switcher.
- e. For Government Owned Eligible Freight Switchers, Beneficiaries may draw funds from the Trust in the amount of:
1. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s) or Generator Sets, including the costs of installation of such engine(s).
 2. Up to 100% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) Freight Switcher.
 3. Up to 100% of the cost of a Repower with a new All-Electric engine(s), including the costs of installation of such engine(s), and charging infrastructure associated with the new All-Electric engine(s).
 4. Up to 100% of the cost of a new All-Electric Freight Switcher, including charging infrastructure associated with the new All-Electric Freight Switcher.

4. Ferries/Tugs

- a. Eligible Ferries and/or Tugs include unregulated, Tier 1, or Tier 2 marine engines.
- b. Eligible Ferry and/or Tug engines that are replaced must be Scrapped.
- c. Eligible Ferries and/or Tugs may be Repowered with any new Tier 3 or Tier 4 diesel or Alternate Fueled engines, or with All-Electric engines, or may be upgraded with an EPA Certified Remanufacture System or an EPA Verified Engine Upgrade.
- d. For Non-Government Owned Eligible Ferries and/or Tugs, Beneficiaries may only draw funds from the Trust in the amount of:
 1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s), including the costs of installation of such engine(s).
 2. Up to 75% of the cost of a Repower with a new All-Electric engine(s), including the costs of installation of such engine(s), and charging infrastructure associated with the new All-Electric engine(s).
- e. For Government Owned Eligible Ferries and/or Tugs, Beneficiaries may draw funds from the Trust in the amount of:
 1. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s), including the costs of installation of such engine(s).
 2. Up to 100% of the cost of a Repower with a new All-Electric engine(s), including the costs of installation of such engine(s), and charging infrastructure associated with the new All-Electric engine(s).

5. Ocean Going Vessels (OGV) Shorepower

a. Eligible Marine Shorepower includes systems that enable a compatible vessel's main and auxiliary engines to remain off while the vessel is at berth. Components of such systems eligible for reimbursement are limited to cables, cable management systems, shore power coupler systems, distribution control systems, and power distribution. Marine shore power systems must comply with international shore power design standards (ISO/IEC/IEEE 80005-1-2012 High Voltage Shore Connection Systems or the IEC/PAS 80005-3:2014 Low Voltage Shore Connection Systems) and should be supplied with power sourced from the local utility grid. Eligible Marine Shorepower includes equipment for vessels that operate within the Great Lakes.

b. For Non-Government Owned Marine Shorepower, Beneficiaries may only draw funds from the Trust in the amount of up to 25% for the costs associated with the shore-side system, including cables, cable management systems, shore power coupler systems, distribution control systems, installation, and power distribution components.

c. For Government Owned Marine Shorepower, Beneficiaries may draw funds from the Trust in the amount of up to 100% for the costs associated with the shore-side system, including cables, cable management systems, shore power coupler systems, distribution control systems, installation, and power distribution components.

6. Class 4-7 Local Freight Trucks (Medium Trucks)

a. Eligible Medium Trucks include 1992-2009 engine model year class 4-7 Local Freight trucks, and for Beneficiaries that have State regulations that already require upgrades to 1992-2009 engine model year trucks at the time of the proposed Eligible Mitigation Action, Eligible Trucks shall also include 2010-2012 engine model year class 4-7 Local Freight trucks.

b. Eligible Medium Trucks must be Scrapped.

c. Eligible Medium Trucks may be Repowered with any new diesel or Alternate Fueled or All-Electric engine, or may be replaced with any new diesel or Alternate Fueled or All-Electric vehicle, with the engine model year in which the Eligible Medium Trucks Mitigation Action occurs or one engine model year prior.

d. For Non-Government Owned Eligible Medium Trucks, Beneficiaries may draw funds from the Trust in the amount of:

1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
2. Up to 25% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
3. Up to 75% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
4. Up to 75% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

e. For Government Owned Eligible Medium Trucks, Beneficiaries may draw funds from the Trust in the amount of:

1. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.

DRAFT BENEFICIARY MITIGATION PLAN FOR PUBLIC COMMENT

2. Up to 100% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
3. Up to 100% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
4. Up to 100% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

7. Airport Ground Support Equipment

a. Eligible Airport Ground Support Equipment includes:

1. Tier 0, Tier 1, or Tier 2 diesel powered airport ground support equipment; and
2. Uncertified, or certified to 3 g/bhp-hr or higher emissions, spark ignition engine powered airport ground support equipment.

b. Eligible Airport Ground Support Equipment must be Scrapped.

c. Eligible Airport Ground Support Equipment may be Repowered with an All-Electric engine, or may be replaced with the same Airport Ground Support Equipment in an All-Electric form.

d. For Non-Government Owned Eligible Airport Ground Support Equipment, Beneficiaries may only draw funds from the Trust in the amount of:

1. Up to 75% of the cost of a Repower with a new All-Electric engine, including costs of installation of such engine, and charging infrastructure associated with such new All-Electric engine.
2. Up to 75% of the cost of a new All-Electric Airport Ground Support Equipment, including charging infrastructure associated with such new All-Electric Airport Ground Support Equipment.

e. For Government Owned Eligible Airport Ground Support Equipment, Beneficiaries may draw funds from the Trust in the amount of:

1. Up to 100% of the cost of a Repower with a new All-Electric engine, including costs of installation of such engine, and charging infrastructure associated with such new All-Electric engine.
2. Up to 100% of the cost of a new All-Electric Airport Ground Support Equipment, including charging infrastructure associated with such new All-Electric Airport Ground Support Equipment.

8. Forklifts and Port Cargo Handling Equipment

a. Eligible Forklifts includes forklifts with greater than 8000 pounds lift capacity.

b. Eligible Forklifts and Port Cargo Handling Equipment must be Scrapped.

c. Eligible Forklifts and Port Cargo Handling Equipment may be Repowered with an All-Electric engine, or may be replaced with the same equipment in an All-Electric form.

d. For Non-Government Owned Eligible Forklifts and Port Cargo Handling Equipment, Beneficiaries may draw funds from the Trust in the amount of:

1. Up to 75% of the cost of a Repower with a new All-Electric engine, including costs of installation of such engine, and charging infrastructure associated with such new All-Electric engine.
2. Up to 75% of the cost of a new All-Electric Forklift or Port Cargo Handling Equipment, including charging infrastructure associated with such new All-Electric Forklift or Port Cargo Handling Equipment.

DRAFT BENEFICIARY MITIGATION PLAN FOR PUBLIC COMMENT

e. For Government Owned Eligible Forklifts and Port Cargo Handling Equipment, Beneficiaries may draw funds from the Trust in the amount of:

1. Up to 100% of the cost of a Repower with a new All-Electric engine, including costs of installation of such engine, and charging infrastructure associated with such new All-Electric engine.
2. Up to 100% of the cost of a new All-Electric Forklift or Port Cargo Handling Equipment, including charging infrastructure associated with such new All-Electric Forklift or Port Cargo Handling Equipment.

9. Light Duty Zero Emission Vehicle Supply Equipment. Each Beneficiary may use up to fifteen percent (15%) of its allocation of Trust Funds on the costs necessary for, and directly connected to, the acquisition, installation, operation and maintenance of new light duty zero emission vehicle supply equipment for projects as specified below. Provided, however, that Trust Funds shall not be made available or used to purchase or rent real-estate, other capital costs (e.g., construction of buildings, parking facilities, etc.) or general maintenance (i.e., maintenance other than of the Supply Equipment).

a. Light duty electric vehicle supply equipment includes Level 1, Level 2 or fast charging equipment (or analogous successor technologies) that is located in a public place, workplace, or multi-unit dwelling and is not consumer light duty electric vehicle supply equipment (i.e., not located at a private residential dwelling that is not a multi-unit dwelling).

b. Light duty hydrogen fuel cell vehicle supply equipment includes hydrogen dispensing equipment capable of dispensing hydrogen at a pressure of 70 megapascals (MPa) (or analogous successor technologies) that is located in a public place.

c. Subject to the 15% limitation above, each Beneficiary may draw funds from the Trust in the amount of:

1. Up to 100% of the cost to purchase, install and maintain eligible light duty electric vehicle supply equipment that will be available to the public at a Government Owned Property.
2. Up to 80% of the cost to purchase, install and maintain eligible light duty electric vehicle supply equipment that will be available to the public at a Non-Government Owned Property.
3. Up to 60% of the cost to purchase, install and maintain eligible light duty electric vehicle supply equipment that is available at a workplace but not to the general public.
4. Up to 60% of the cost to purchase, install and maintain eligible light duty electric vehicle supply equipment that is available at a multi-unit dwelling but not to the general public.
5. Up to 33% of the cost to purchase, install and maintain eligible light duty hydrogen fuel cell vehicle supply equipment capable of dispensing at least 250 kg/day that will be available to the public.
6. Up to 25% of the cost to purchase, install and maintain eligible light duty hydrogen fuel cell vehicle supply equipment capable of dispensing at least 100 kg/day that will be available to the public.

10. Diesel Emission Reduction Act (DERA) Option. Beneficiaries may use Trust Funds for their non-federal voluntary match, pursuant to Title VII, Subtitle G, Section 793 of the DERA Program in the Energy Policy Act of 2005 (codified at 42 U.S.C. § 16133), or Section 792 (codified at 42 U.S.C. § 16132) in the case of Tribes, thereby allowing Beneficiaries to use such Trust Funds for actions not specifically enumerated in this Appendix D-2, but otherwise eligible under DERA pursuant to all DERA guidance documents available

DRAFT BENEFICIARY MITIGATION PLAN FOR PUBLIC COMMENT

through the EPA. Trust Funds shall not be used to meet the non-federal mandatory cost share requirements, as defined in applicable DERA program guidance, of any DERA grant.

Appendix 2 – Definitions/Glossary of Terms

“Airport Ground Support Equipment” shall mean vehicles and equipment used at an airport to service aircraft between flights.

“All-Electric” shall mean powered exclusively by electricity provided by a battery, fuel cell, or the grid.

“Alternate Fueled” shall mean an engine, or a vehicle or piece of equipment that is powered by an engine, which uses a fuel different from or in addition to gasoline fuel or diesel fuel (e.g., CNG, propane, diesel-electric Hybrid).

“Certified Remanufacture System or Verified Engine Upgrade” shall mean engine upgrades certified or verified by EPA or CARB to achieve a reduction in emissions.

“Class 4-7 Local Freight Trucks (Medium Trucks)” shall mean trucks, including commercial trucks, used to deliver cargo and freight (e.g., courier services, delivery trucks, box trucks moving freight, waste haulers, dump trucks, concrete mixers) with a Gross Vehicle Weight Rating (GVWR) between 14,001 and 33,000 lbs.

“Class 4-8 School Bus, Shuttle Bus, or Transit Bus (Buses)” shall mean vehicles with a Gross Vehicle Weight Rating (GVWR) greater than 14,001 lbs. used for transporting people. See definition for School Bus below.

“Class 8 Local Freight, and Port Drayage Trucks (Eligible Large Trucks)” shall mean trucks with a Gross Vehicle Weight Rating (GVWR) greater than 33,000 lbs. used for port drayage and/or freight/cargo delivery (including waste haulers, dump trucks, concrete mixers).

“CNG” shall mean Compressed Natural Gas.

“Drayage Trucks” shall mean trucks hauling cargo to and from ports and intermodal rail yards.

“Forklift” shall mean nonroad equipment used to lift and move materials short distances; generally includes tines to lift objects. Eligible types of forklifts include reach stackers, side loaders, and top loaders.

“Freight Switcher” shall mean a locomotive that moves rail cars around a rail yard as compared to a line-haul engine that moves freight long distances.

“Generator Set” shall mean a switcher locomotive equipped with multiple engines that can turn off one or more engines to reduce emissions and save fuel depending on the load it is moving.

“Government” shall mean a State or local government agency (including a school district, municipality, city, county, special district, transit district, joint powers authority, or port authority, owning fleets purchased with government funds), and a tribal government or native village. The term “State” means the several States, the District of Columbia, and the Commonwealth of Puerto Rico.

“Gross Vehicle Weight Rating (GVWR)” shall mean the maximum weight of the vehicle, as specified by the manufacturer. GVWR includes total vehicle weight plus fluids, passengers, and cargo.

Class 1: < 6000 lb.
Class 2: 6001-10,000 lb.
Class 3: 10,001-14,000 lb.

DRAFT BENEFICIARY MITIGATION PLAN FOR PUBLIC COMMENT

Class 4: 14,001-16,000 lb.

Class 5: 16,001-19,500 lb.

Class 6: 19,501-26,000 lb.

Class 7: 26,001-33,000 lb.

Class 8: > 33,001 lb.

“Hybrid” shall mean a vehicle that combines an internal combustion engine with a battery and electric motor.

“Infrastructure” shall mean the equipment used to enable the use of electric powered vehicles (e.g., electric vehicle charging station).

“Intermodal Rail Yard” shall mean a rail facility in which cargo is transferred from drayage truck to train or vice-versa.

“Port Cargo Handling Equipment” shall mean rubber-tired gantry cranes, straddle carriers, shuttle carriers, and terminal tractors, including yard hostlers and yard tractors that operate within ports.

“Plug-in Hybrid Electric Vehicle (PHEV)” shall mean a vehicle that is similar to a Hybrid but is equipped with a larger, more advanced battery that allows the vehicle to be plugged in and recharged in addition to refueling with gasoline. This larger battery allows the car to be driven on a combination of electric and gasoline fuels.

“Repower” shall mean to replace an existing engine with a newer, cleaner engine or power source that is certified EPA and, if applicable, CARB, to meet a more stringent set of engine emission standards. Repower includes, but is not limited to, diesel engine replacement with an engine certified for use with diesel or a clean alternate fuel, diesel engine replacement with an electric power source (e.g., grid, battery), diesel engine replacement with a fuel cell, diesel engine replacement with an electric generator(s) (genset), diesel engine upgrades in Ferries/Tugs with an EPA Certified Remanufacture System, and/or diesel engine upgrades in Ferries/Tugs with an EPA Verified Engine Upgrade. All-Electric and fuel cell Repowers do not require EPA or CARB certification.

“School Bus” shall mean a Class 4-8 bus sold or introduced into interstate commerce for purposes that include carrying students to and from school or related events. May be Type A-D.

“Scrapped” shall mean to render inoperable and available for recycle, and, at a minimum, to specifically cut a 3-inch hole in the engine block for all engines. If any Eligible Vehicle will be replaced as part of an Eligible project, Scrapped shall also include the disabling of the chassis by cutting the vehicle’s frame rails completely in half.

“Tier 0, 1, 2, 3, 4” shall refer to corresponding EPA engine emission classifications for nonroad, locomotive, and marine engines.

“Tugs” shall mean dedicated vessels that push or pull other vessels in ports, harbors, and inland waterways (e.g., tugboats and towboats).

“Zero Emission Vehicle (ZEV)” shall mean a vehicle that produces no emissions from the onboard source of power (e.g., All-Electric or hydrogen fuel cell vehicles).